1873MNRAS..33..138W

Star Shower observed at Malta on 27th November, 1872.

By Commander W. J. S. Wharton.

At sunset the evening was clear, and a great many aerolites were perceived. At 5.45, 250 were counted in ten minutes by two observers.

At 6, four observers, taking a quadrant of the heavens each, counted 298 in five minutes:—

N.E.	quadrant	..	90
S.E.	do.	..	75
S.W.	do.	..	59
N.W.	do.	..	74
		Total	298

The shower steadily increased till at 7.45 P.M., the numbers counted were as follows:—

N.E.	..	245
S.E.	..	425
S.W.	..	293
N.W.	..	200
		1163 in 5 minutes.

At this time they were falling so fast that probably not two-thirds of the actual number visible were counted, it was impossible for one observer to take in a whole quadrant. The aerolites were, as a rule, small, and the paths short; no bolides were observed. The radial point was as nearly as could be measured, in 37° N. declination and 0^h 40 R.A., not far from the star, *β Andromedæ.* This (the radial point) was, at 7.45, nearly in the zenith, and the stars fell on all sides. Immediately after this observation the clouds gathered, and the heavens were more or less obscured till 11 o'clock, but in the rifts the aerolites could be seen still falling rapidly. At 11 o'clock, when the sky was again clear, the numbers had greatly diminished, but there were still many visible. After this, the shower gradually dwindled away to nothing. Only two aerolites were observed that did not come from the radial point above mentioned, or its vicinity. No star track remained visible more than a few seconds.

H.M.S. Shearwater, at Malta,
2nd December, 1872.

Note on the Meteor Swarm of Nov. 27th, 1872.

By Charles E. Burton, B.A.

Communicated by G. Johnstone Stoney, Esq. (*Abstract.*)

The positions of the radiant point of the meteors which entered the Earth's atmosphere on the evening of the 27th of last Novem-

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ber, were observed by Mr. Burton in the neighbourhood of Dublin at about the following hours of local time, $7^h\ 15^m$, $7^h\ 45^m$ and $8^h\ 15^m$.

The following table in which for more convenience the local times have been converted into Greenwich times presents Mr. Burton's results:—

Greenwich Mean Time. Nov. 27, 1872.	Position of Radiant Point.	
	R.A.	N. P. D.
h m	° ′	° ′
7 40	17 0	43 30
8 10	19 30	45 10
8 40	22 25	46 25

Mr. Burton observed from a station nearly 25^m West longitude and 54° 12′ North latitude.

As regards the weight to be attached to the observations,—The first of Mr. Burton's observations was taken with a fair amount of care, and the other two with the utmost attainable accuracy, on account of his having been struck with the motion of the radiant point. His further observation was unfortunately stopped by cloud.

Ephemeris for Physical Observations of the Moon.

By A. Marth, Esq.

(*Communicated by R. S. Newall, Esq.*)

Though the phenomena attending sunrise and sunset on the Moon's surface have been frequently looked at, because affording some of the most striking and interesting of telescopic sights, they have in reality been so little "observed," or at least to so little practical purpose, that for want of the needed "observations" no exact prediction can yet be made of what phenomena may be expected to be seen at a given time or at what time some given phenomenon may be expected to recur. Yet the observations required for the purpose are of the simplest character, and can easily be made by zealous amateurs in possession of a good telescope and of Mädler's map of the Moon, who are willing to devote to them the needed time and patience. That such observations have not been abundantly made, is perhaps chiefly due to the want of a proper ephemeris of the Sun's selenographical position (such as has been published monthly for some time past in the *Astron. Register*), without which the observations cannot be made available for further use, but it may also be partly due to the simple circumstance, that some amateurs are perhaps not sufficiently aware, that by merely noting the time and the exact locality of the occurrence of some lunar phenomenon they secure the data needed for the prediction of its recurrence.

I submit new ephemerides supplying, for the next three lunations, the selenocentrical places of the Sun and also of the Earth,

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